

REMARKS

Claim 1 is amended. Claims 13-15 are new. No new subject matter is added. Claims 1-15 are now pending in the application. Reconsideration and allowance of claims 1-15 is requested in light of the following remarks.

Allowable Subject Matter

Claims 3, 7, and 9-12 are objected to as being dependent upon a rejected base claim, but are otherwise indicated to be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

In keeping with the indication of allowable subject matter, new claims 13-15 are added. Claim 13 is independent and contains the subject matter recited in claims 1 and 3. Claims 14 and 15 depend from claim 13 and contain the subject matter of claims 2 and 4, respectively.

In the Claims

The amendment of claim 1 is fully supported by the original application at, e.g., FIG. 11.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 2, 4-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,899,742 to Sun (“Sun”) in view of U.S. Patent No. 6,573,583 to Hokazono (“Hokazono”). The applicant disagrees.

Claim 1 recites a blocking insulation layer disposed on the isolation layer and on a portion of the active region neighboring the isolation layer.

Contrary to this feature of claim 1, Sun FIG. 3H illustrates that the barrier layer 44 is not disposed on the isolation region 31 and on a portion of the active region neighboring the isolation region 31.

Also contrary to this feature of claim 1, Hokazono FIG. 4 illustrates that the second device isolation insulating film 18 is not disposed on the first device isolation insulating film 16 and on a portion of the active region neighboring the first device isolation insulating film 16 (column 8, lines 63-67).

Since neither Sun nor Hokazono disclose the recited feature of a blocking insulation layer disposed on the isolation layer and on a portion of the active region neighboring the isolation

layer, the combination fails to establish *prima facie* obviousness for claim 1 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Claim 1 further recites that the blocking insulation layer is spaced apart from the sidewall spacers. Contrary to this feature, Sun FIG. 3H illustrates that the barrier layer 44 formed between the gate electrodes 34a, 34b is not spaced apart from the spacers 37b and 37c. Hokazono FIG. 4 also fails to show that the second device isolation insulating film 18 is spaced apart from the sidewall spacers 9.

For this additional reason, the combination of Sun and Hokazono fails to establish *prima facie* obviousness for claim 1 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Claims 2 and 4 depend from claim 1, consequently claims 2 and 4 are allowable over the combination of Sun and Hokazono at least because any claim that depends from a nonobvious independent claim is also nonobvious. MPEP 2143.03.

Similar to claim 1, claim 5 recites anisotropically etching the spacer insulation layer to form a sidewall spacer on a sidewall of the gate pattern, and to leave a blocking insulation layer on the isolation layer and on a portion of the active region neighboring the isolation layer.

Consequently, for at least the same reason as discussed above for claim 1, the combination of Sun and Hokazono fails to teach establish *prima facie* obviousness for claim 5 because the combination does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Further regarding claim 5, it recites forming a spacer insulation layer on a surface of the semiconductor substrate with the gate pattern, the spacer insulation layer having a first region between the isolation layer and the gate pattern, wherein the closer the first region lies to the gate pattern, the thinner it becomes.

Contrary to the above feature of claim 5, Sun fails to teach or suggest that the barrier layer 44 becomes thinner the closer that it lies to the gate pattern (see, e.g., FIG. 3H). Also contrary to claim 5, Hokazono fails to teach or suggest that the Si or SiGe layer 10 becomes thinner the closer that it lies to the gate pattern (see, e.g., FIG. 4).

Consequently, for this additional reason the combination of Sun and Hokazono fails to establish *prima facie* obviousness for claim 5 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Further regarding claim 5, it recites anisotropically etching the spacer insulation layer to form a sidewall spacer on a sidewall of the gate pattern, and to leave a blocking insulation layer on the isolation layer and on a portion of the active region neighboring the isolation layer.

Contrary to the above feature of claim 5, Sun fails to teach or suggest that the barrier layer 44 is formed from the same layer as the spacers 37e, 37b, 37c, or 37d (see, e.g., FIG. 3F). Also contrary to claim 5, Hokazono fails to teach or suggest that the Si or SiGe layer 10 is formed from the same layer as the spacer 9 (see, e.g., FIG. 4).

Consequently, for this additional reason the combination of Sun and Hokazono fails to establish *prima facie* obviousness for claim 5 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Claims 6 and 8 depend from claim 5, consequently claims 6 and 8 are allowable over Sun and Hokazono at least because any claim that depends from a nonobvious independent claim is also nonobvious. MPEP 2143.03.

Further regarding claim 6, it recites that forming the spacer insulation layer includes stacking a silicon nitride layer and a silicon oxide layer.

Contrary to this feature of claim 6, Sun fails to teach or suggest that the barrier layer 44 includes both a silicon nitride layer and a silicon oxide layer. Also contrary to this feature of claim 6, Hokazono fails to teach or suggest that the Si or SiGe layer 10 includes both a silicon nitride layer and a silicon oxide layer.


Consequently, for this additional reason the combination of Sun and Hokazono fails to establish *prima facie* obviousness for claim 6 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Conclusion

For the reasons presented above, reconsideration and allowance of the pending claims is requested. Please telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.


Todd J. Iverson
Reg. No. 53,057

MARGER JOHNSON & McCOLLOM, P.C.
210 SW Morrison Street, Suite 400
Portland, OR 97204
503-222-3613

Customer No. 20575